What is claimed is:

1. A method for enhancing activity to regenerate an electron acceptor for oxidoreductase of a microorganism capable of producing the enzyme, the method comprising culturing the microorganism in a culture medium with low concentration of dissolved oxygen during the period that the enzyme is expressed.

2. The method according to claim 1, wherein the concentration of dissolved oxygen is 50% or less saturation.

3. The method according to claim 1, wherein the concentration of dissolved oxygen is 20% or less saturation.

4. The method according to claim 1, wherein the concentration of dissolved oxygen is 10% or less saturation.

5. The method according to claim 1, wherein the oxidoreductase uses nicotinamide adenine dinucleotide (NAD^+) or nicotinamide adenine dinucleotide phosphate ($NADP^+$) as an electron acceptor.

6. The method according to claim 1, wherein said oxidoreductase is alcohol dehydrogenase.

7. The method according to claim 1, wherein said microorganism carries a foreign gene encoding oxidoreductase.

8. The method according to claim 7, wherein said microorganism is *Escherichia coli*.

9. A microorganism capable of producing oxidoreductase whose activity to regenerate an electron acceptor for oxidoreductase is enhanced by the method according to claim 1.

10. A method for producing an oxidized form of organic compound, the method comprising contacting the organic compound with the microorganism of claim 9.

11. The method according to claim 10, wherein the organic compound is alcohol.

12. A method for producing optically active alcohol, the method comprising contacting the microorganism of claim 9 with racemic alcohol to specifically oxidize either (S)-enantiomer or (R)-enantiomer in the racemate.